AMAENDMENT TO THE CLAIMS:

1. (currently amended) A process for measuring and monitoring motor systems, said process comprising:

providing a motor system having at least one component selected from a stator and an armature, said at least one component connected to at least one electrical wire;

incorporating at least one ~~means for data measurement~~ fiber optical cable with said at least one electrical wire, the fiber optical cable is provided with at least one physical parameter sensor and is embedded in an electrical insulation coating surrounding at least one electrical wire;

collecting data with said at least one fiber optical cable ~~means for data measurement~~; and

transferring said collected data to a data collection station.

2. (canceled)

3. A process according to claim 2 wherein said fiber optical cable ~~means for measuring data~~ is encapsulated and attached to said electrical wire by covering or coating the electrical wire and the means for measuring data with an insulation material.

4. (canceled)

5. (currently amended) A process for measuring and monitoring motor systems, said process comprising:

providing a motor system having at least one motor component selected from a stator and an armature, said at least one component connected to at least one electrical wire;

providing at least one means for data measurement wherein said means for data measurement comprises a fiber optical cable;

connecting said at least one means for data measurement with said at least one motor component;

collecting data with said at least one means for data measurement; and

transferring said collected data to a data collection station.

6. (original) A process according to claim 5 wherein said means for measuring data is

contained within a tube.

7. (original) A process according to claim 6 wherein said motor component is a stator and said tube is wound in said stator with said electrical wire.

8 (canceled)

9. (original) A process for measuring and monitoring motor systems, said process comprising:

providing a motor system having at least one motor component selected from a stator and an armature, said at least one component connected to at least one electrical wire;

winding at least one optic fiber around said electrical wire;

collecting data with said optic fiber; and

communicating said collected data to at least one sensor located outside said motor.

10. (previously presented) An apparatus for measuring and monitoring motor systems comprising:

a motor system having at least one motor component selected from a stator and an armature, said at least one component connected to at least one electrical wire:

an optic fiber wound around said electrical wire;

means for collecting data with said optic fiber; and

means for communicating said data to at least one sensor located outside said motor.

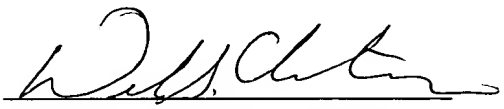
11. (previously presented) The apparatus according to claim 10 wherein said means for collecting data is an optic fiber wrapped around said electrical wire.

12. (previously presented) The apparatus according to claim 11 wherein said means for measuring data is encapsulated and attached to said electrical wire by covering or coating the electrical wire and the means for measuring data with an insulation material.

Claims 1, 3, 5-7, and 9-12 remain in the present application. Each of the claims now require that a fiber optical cable be connected to a wire of the stator and/or rotor of the motor as the means for data measurement.

Respectfully submitted,

David R. Smith

By: 

His Attorney, Del S. Christensen
Registration No. 33,482
(713) 241-3997

P. O. Box 2463
Houston, TX 77252-2463

R:\LEGAL\DSC\TH1354.AMD